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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/816,281	03/24/2001	Todd E. Watson		7544

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Todd E. Watson
123 Prospect Hill Avenue
West Warwick, RI 02893

EXAMINER

DO, CHAT C

ART UNIT	PAPER NUMBER
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2124

DATE MAILED: 06/18/2004

3

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/816,281

Applicant(s)

WATSON, TODD E.

Examiner

Chat C. Do

Art Unit

2124

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 March 2001 and 18 June 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>2</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement filed 06/18/2001 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each publication cited in other prior art section. It has been placed in the application file, but the information referred to therein has not been considered.

Specification

2. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

3. The abstract of the disclosure is objected to because the abstract exceeds 150 words in length. Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are

such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being obvious over McClellan et al. (U.S. 5,216,627) in view of Spitzner (U.S. 4,319,130).

Re claim 1, McClellan et al. disclose in Figures 2, 4, 6, 9, and 11-13 a calculating device (abstract) comprised of memory (44 in Fig. 2), an alphanumeric keypad (22 in Fig. 2), and display means (24 in Fig. 2), a method for converting units (abstract) comprising: (a) storing in memory (38 and 44 in Fig. 2) a first expression comprised of a single numeric value (e.g. in Fig. 12 wherein 10 as scalar and atm as unit) or plurality of numeric values joined by arithmetic symbols (e.g. Fig. 4 wherein multiple operands are enter for processing), such that first expression equates to a single numeric value; (b) storing in memory (38 and 44 in Fig. 2) a first unit part comprised of a single unit or a plurality of units joined by arithmetic symbols (e.g. col. 4 lines 42-49); (c) storing in memory (38 and 44 in Fig. 2) a second unit part comprised of a single unit or a plurality of units joined by arithmetic symbols (e.g. Fig. 13 wherein qt/h is entered); (d) reading from memory or storage device (e.g in Fig. 2 wherein ROM is used) conversion factors or conversion equations from a conversion table (e.g. col. 9 lines 1-8); (e) segregating first unit part and second unit part into individual elements (e.g. col. 4 lines 43-48), (f) converting (e.g. Fig. 9 wherein 106 is used to convert) first unit part into second unit part by converting each numerator unit occurring in first unit part into each numerator unit occurring in second unit part (e.g. Fig. 13 wherein ft³ to qt) and converting each denominator unit occurring in first unit part into each denominator unit occurring in second unit part (e.g. Fig. 13 wherein min to h as hour); (g) replacing (e.g. Fig. 6

wherein there is more than one unit entity) any derived unit comprising first unit part or second unit part with the derived unit's multi-unit equivalent, multi-unit equivalent being comprised of other derived units or base units, subsequent reinitiating of conversion process using multi-unit equivalent in place of derived unit. McClellan et al. fail to disclose a step of entering first and second unit parts by spelling full names of units or alias names of units using the alphanumeric keypad. However, Spitzner discloses in Figure 7 a step of entering first and second unit parts by spelling full names of units or alias names of units using the alphanumeric keypad directly (e.g. wherein KM/HR is entered using keypad). Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention is made to add a step of entering the unit parts using the provided alphanumeric keypad as seen in Spitzner's Figure 7 into McClellan's invention because it would enable to reduce the storage memory and displaying a menu of units for selection.

Re claim 2, McClellan et al. further disclose in Figures 2, 4, 6, 9, and 11-13 the conversion of first unit part into second unit part continues until either numerator and denominator units comprising first unit part have been converted into numerator and denominator units comprising second unit part (e.g. Fig. 13) or until each derived unit comprising first unit part and second unit part has been replaced with base units such that no derived units comprising first unit part or second unit part remain and conversion of numerator and denominator base units comprising first unit part and second unit part is unsuccessful (e.g. Fig. 6 and 60, 62, and 64 in Fig. 4).

Art Unit: 2124

Re claim 3, McClellan et al. further disclose in Figures 2, 4, 6, 9, and 11-13 each version of a multi-definition unit comprising first unit part or second unit part is displayed for the User's selection of the desired version of multi-definition unit (e.g. after Multiplication process, the user has an option to convert to a desired multi-definition unit using conversion key in Fig. 9).

Re claim 4, McClellan et al. further disclose in Figures 2, 4, 6, 9, and 11-13 each element is comprised of either a unit name, a symbol indicating placement of unit in numerator or denominator, or a numeric expression representing an exponential value (e.g. col. 4 lines 43-48 and Fig. 13).

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a. U.S. Patent No. 5,379,239 to Nakatani discloses a waveform display device.
- b. U.S. Patent No. 6,598,186 to McGuire et al. disclose a system and method for compile-time checking of units.
- c. U.S. Patent No. 5,594,673 to Coffin discloses a method and apparatus for displaying menu options for selection with a minimum of key stroke.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chat C. Do whose telephone number is (703) 305-5655. The examiner can normally be reached on M => F from 7:00 AM to 4:30 PM.

Art Unit: 2124

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chaki Kakali can be reached on (703) 305-9662. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Chat C. Do
Examiner
Art Unit 2124

June 7, 2004

Kakali Chaki
KAKALI CHAKI
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100